

§ 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

### ***Amendments***

Please amend the application as follows:

#### ***In the Claims:***

DI 1. (Amended) A purified 20 kDa presenilin 2 C-terminal fragment (PS2-CTF), wherein the molecular weight of said PS2-CTF is determined by a polyacrylamide gel electrophoresis/western transfer procedure.

DF 2. (Thrice amended) An antibody having binding that is specific to a purified 20 kDa presenilin-2 C-terminal fragment (PS2-CTF), wherein the molecular weight of said PS2-CTF is determined by a polyacrylamide gel electrophoresis/western transfer procedure, and wherein said antibody does not bind presenilin-2.

123 3. (Amended) A method of detecting 20 kDa PS2-CTF, wherein the molecular weight of said PS2-CTF is determined by a polyacrylamide gel electrophoresis/western transfer procedure, in a sample comprising:

- a) contacting said sample with an antibody according to claim 2, under conditions such that immunocomplexes form, and
- b) detecting the presence of said antibody bound to said polypeptide.

9. (Amended) A method for screening compounds that inhibit proteolytic processing of presenilin 2 in a cell comprising (a) providing a compound to a cell, wherein the cell proteolytically processes presenilin 2, (b) measuring the amount of 20 kDa presenilin 2 C-terminal fragment (PS2-CTF) produced in said cell, and (c) comparing said amount produced to an amount of PS2-CTF produced in a cell not treated with said compound, wherein a decreased amount of 20 kDa presenilin 2 fragment in said cell treated with said compound as compared to a cell not treated with said compound indicates that said compound inhibits proteolytic processing of presenilin 2 in said cell, wherein the molecular weight of said PS2-CTF is determined by a polyacrylamide gel electrophoresis/western transfer procedure.